#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018728 Address: 333 Burma Road **Date Inspected:** 06-Dec-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr.Zhu Zhong Hai. No **Inspected CWI report:** Yes No N/A **Rod Oven in Use:** Yes No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

#### NDT OBG TRIAL ASSEMBLY:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6028 (MT) report for this date. The member is identified as OBG Travel Rail Bracket. The weld designations reviewed are as follows.

TR5C-PP095-006

TR5D-PP099-008

TR6B-PP096-004

TR6B-PP108-004

TR6C-PP106-006

NDT Notification No-07647

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG LD weld. The weld designations reviewed are as follows.

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SEG073B-009, 010, 024, 031 SEG073C-019, 020, 030, 016 SEG071B-007, 008 SEG071C-007, 008 NDT Notification No-07658

This QA Inspector observed the following work in progress:

#### **OBG TRIAL ASSEMBLY**

This QA Inspector observed ZPMC qualified welding personnel identified as 040320 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 12AE + 11EE Deck plate to edge plate hold back area, panel point 109 Cross beam side. Joint identified as SEG3001AA-001 and CA093-006. ZPMC CWI Identified as Liu Hua Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 050289 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 11EE+12AE Edge plate to side plate hold back area. Joint identified as CA093-005. ZPMC CWI Identified as An Qing Xiang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 050289 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 11EE+12AE Edge plate to side plate hold back area. Joint identified as SEG3001AA-002. ZPMC CWI Identified as An Qing Xiang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. For more information see below attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040759 Perform Flux Core Arc Welding (FCAW) on OBG segment longitudinal diaphragm to bottom plate 12AW Panel point 109 cross beam side. Joint identified as SEG3004T-015, 016. ZPMC QC Identified as Shi Lei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB. For more information see below attached picture number 2.

This QA Inspector observed ZPMC qualified welding personnel identified as 040378 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 12AE panel point 109, longitudinal diaphragm to flour beam bike path side. Joint identified as SEG3001W-009. ZPMC CWI Identified as Liu Hua Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F) FCM-Repair -1.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone :150-0042-2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer